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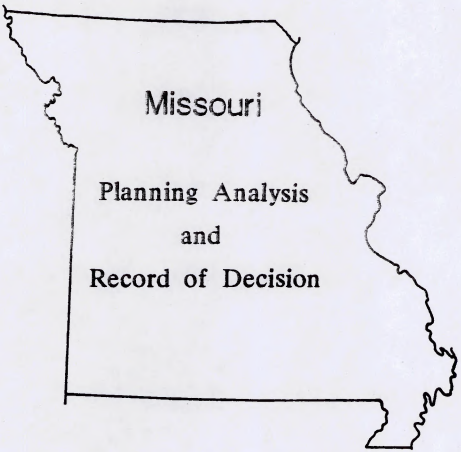

Missouri

Planning Analysis and Record of Decision

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U.S. Department of the Interior
Bureau of Land Management
Milwaukee District Office
Eastern States

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
MILWAUKEE DISTRICT OFFICE
P.O. BOX 631
MILWAUKEE, WISCONSIN 53201-0631

IN REPLY REFER TO:

THE BUREAU OF LAND MANAGEMENT

The Bureau of Land Management, an agency of the U.S. Department of the Interior, administers America's Federal mineral resources and its public domain lands. The Milwaukee District Office is responsible for management of Federal minerals and public domain land in the following 20 states: Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Wisconsin and West Virginia.

The primary mission of the Bureau in the East remains minerals management. The Bureau issues exploration permits, leases and drilling permits, and oversees operations, for all federally owned mineral estate regardless of surface ownership. Almost half of the Eastern Federal mienrals are under the National Forests, managed by the Forest Service, U.S. Department of Agriculture. Some Federal mineral holdings underlie surface owned by State or local governments or private individuals. Policy and procedures require environmental analysis and surface owner consultation prior to all permitting activities.

The Bureau is the successor to the General Land Office, which disposed of most of the public domain during the nineteenth century through statehood grants, homestead claims, sales and a variety of special Acts of Congress. Now, most of the public domain tracts which remain in the Eastern half of the country are primarily small islands in Michigan, Minnesota and Wisconsin. A few small tracts are widely scattered in several other Eastern states.

Another active Bureau program is the Wild Horse and Burro Adoption Program. Excess wild horses and burros from the Western rangelands are available for adoption by the public at nominal fees. Adoptions are conducted periodically at centers throughout the Eastern States.

To adopt a wild horse or burro, or for further information on other Bureau of Land Management activities in the East, write to the Milwaukee District Manager at the above address.

RECORD OF DECISION
MISSOURI PLANNING ANALYSIS

This document records the decisions made by the Bureau of Land Management (BLM) for managing 399.7 surface acres of public land and 13,775.4 acres of Federal minerals in the State of Missouri.

DECISION

The decision is made to approve the attached plan as the planning analysis for public lands and Federal minerals administered by the BLM in the State of Missouri. This plan was prepared under the regulations for implementing the Federal Land Policy and Management Act (FLPMA) of 1976 (43 U.S.C. 1701 et seq.). An environmental assessment (EA) was prepared for the decisions in this plan in compliance with the National Environmental Policy Act (NEPA) of 1969. This plan is identical to the one set forth in the proposed plan and associated environmental assessment published in September, 1986.

The decisions made in the planning document are:

- All surface area (399.7 acres) of public land administered by the BLM plus any tracts discovered in the future will be further considered for disposal,

- All Federal minerals (13,375.7 acres) underlying BLM, State, local, and private surface and administered by the BLM plus any similar tracts discovered in the future will be further considered for exploration and development.

(Additional environmental analysis will be required prior to disposal of surface estate or leasing of Federal minerals.)

ALTERNATIVES CONSIDERED

Four alternatives for managing the surface and mineral estate were considered in the development of this plan analysis. These included the No Action Alternative required by the National Environmental Policy Act; Surface Retention and Active Management, Disposal of the Mineral Estate, and the Preferred Alternative.

CONSISTENCY

This planning analysis is consistent with the plans, programs, and policies of other Federal agencies and of State and local governments.

MANAGEMENT CONSIDERATIONS

Surface disposal provisions of the preferred alternative were found to be environmentally preferable since they would result in identification of surface values and would attempt to place these values under more intense management. The mineral development provisions would provide better management control over the pace of development and mitigation of impacts than would be possible under the "no action" alternative.

Neither the preferred nor the "no action" alternative were found to have any significant environmental effects.

MITIGATING MEASURES

The plan has been designed to avoid or minimize environmental harm where practicable. Specific mitigation measures in accordance with existing laws, regulations, and other requirements will be designed on a tract-by-tract basis as needed. The tract-by-tract analysis will address monitoring actions required by the implementing decisions.

MONITORING

Monitoring will be designed for the individual situations following site-specific analysis.

PUBLIC INVOLVEMENT

The views of the public have been sought throughout the planning and decision making process. Public comments on the proposed plan were generally very favorable. Comments received from Federal agencies, regional planning councils, County governments, and environmental groups supported selection of the preferred alternative.

PUBLIC AVAILABILITY OF THIS DOCUMENT

Copies of the Missouri Planning Analysis are available from the District Manager, Bureau of Land Management, Milwaukee District Office, 310 West Wisconsin Avenue, Suite 225, Milwaukee, Wisconsin 53203, telephone (414) 291-4400.

9/30/87
Date

G. Curtis Jones, Jr.
State Director, Eastern States Office

MISSOURI

PLANNING ANALYSIS

CHAPTER ONE

I. INTRODUCTION

This planning analysis contains the land use decisions and conditions for guiding and controlling future management actions for Bureau of Land Management (BLM) administered lands and mineral resources in the State of Missouri. All future uses and activities in the planning area must conform with the decisions and conditions as described in this planning analysis.

This planning analysis describes in general terms the implementation actions needed to carry out the decision, the process necessary to modify this planning analysis, and what support will be needed. It does not present information on environmental consequences, consistency, or effects of management. This information was presented in the Proposed Plan and Environmental Assessment published in September, 1986. This planning analysis is the culmination of an effort begun in 1985.

A. Purpose and Need

The primary reason for preparing the Missouri Plan was to initiate an active management posture with regard to disposal of public domain lands and leasing of Federal minerals managed by the BLM. There has been no previous attempt to actively manage this Federal surface and mineral estate in Missouri with a coherent policy.

The Missouri Plan was prepared in accordance with the Federal Land Policy and Management Act of 1976, Bureau planning regulations at 43 CFR 1601 et seq. and State Director Guidance for Planning in the Eastern States Office (March, 1985). Existing information, developed chiefly during the management situation analysis for this planning effort, was used as much as possible.

B. Description of the Planning Area

The planning area consists of the Federal surface and mineral estate managed solely by the Bureau of Land Management within the State of Missouri. The known public domain tracts consist of eight upland tracts and one island totaling approximately 399.7 acres. These are tracts which were left in Federal ownership after the other more desirable lands were placed in State or private ownership during settlement. The eight counties that contain both Federal surface and mineral estate are shown on Table 1 and figure 1.

The Federal mineral ownership (FMO) addressed in this plan consists of numerous scattered tracts of Federal mineral estate under surface owned by the State, local units of government, and the private sector. This "split-estate" Federal mineral ownership totals approximately 13,375.7 acres. The 399.7 acres of public domain

mineral estate mentioned above is also considered in this plan. Thus, the total Federal mineral ownership under consideration is approximately 13,775.4. This acreage is scattered throughout 62 Missouri counties. Table 1 and figure 1 illustrate the Federal surface and mineral estate solely administered by the BLM. It is important to recognize that this planning analysis does not make land use decisions for surface resources on the 13,375.7 acres of "split estate" discussed above.

TABLE 1

Bureau of Land Management

Surface and Mineral Estate

Missouri

County	BLM Surface Tracts	BLM Surface and Mineral Acreage	Federal Mineral Acreage; State, Local, Private Surface*
Audrain			391.0
Barry			80.0
Barton			177.0
Bates			985.0
Benton			76.0
Boone			80.0
Buchanan			94.0
Butler			580.0
Caldwell			86.0
Callaway			400.0
Carroll			44.0
Cass			30.0
Cedar			240.0
Christian			524.0
Clark			198.0
Clinton			195.0
Dade			39.0
Dallas			480.0
Daviess			80.0
DeKalb			199.0
Dent			70.0
Douglas			405.3
Dunkin			301.3
Harrison			40.0
Henry	1	40.0	271.0
Holt			160.0
Howard	1	160.0	
Jasper			70.0
Jefferson	1	21.45	
Johnson			139.5
Laclede			355.0
Lawrence			251.0

CONTINUED

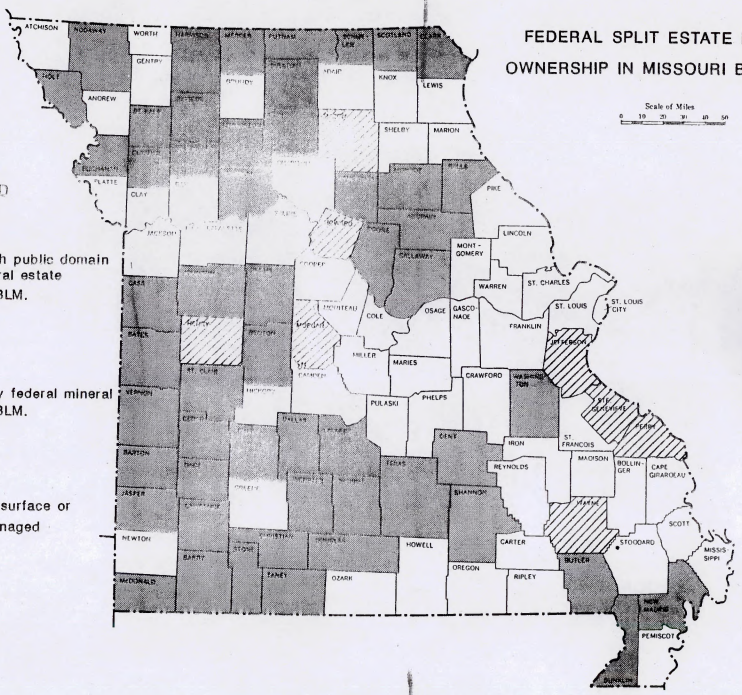
County	BLM Surface Tracts	BLM Surface and Mineral Acreage	Federal Mineral Acreage; State, Local, Private Surface*
Linn			440.0
Livingston			302.9
Macon	1	40.0	609.0
McDonald			80.0
Mercer			88.0
Miller			40.0
Monroe			6.5
Morgan	2	80.0	
New Madrid			243.9
Nodaway			251.0
Perry	1	0.7	
Pettis			80.0
Polk			220.0
Putnam			80.0
Ralls			57.0
Randolph			26.0
Unknown			394.1
St. Clair			332.3
St. Genevieve	1	17.55	
Schuyler			183.0
Scotland			200.0
Shannon			130.2
Stone			199.0
Sullivan			196.0
Taney			56.6
Texas			360.0
Vernon			165.0
Washington			41.6
Wayne	1	40.0	440.0
Webster			1,032.0
Wright			80.0
TOTAL	9	399.7	13,375.7

*Federal mineral ownership acreage is based on best available data, which may be incomplete.

C. Mineral Estate Not Addressed In This Plan

This planning analysis does not make decisions for management of the surface or mineral estate where the surface is managed by another Federal agency (SMA) and the minerals are federally owned. The surface managing agencies (SMA's) retain full authority to manage their programs and surface resources, even though BLM administers the underlying mineral estate. The BLM is responsible for management of all Federal mineral resource, for evaluating mineral development potential and for issuing decisions on mineral leases, permits and

FEDERAL SPLIT ESTATE MINERAL OWNERSHIP IN MISSOURI BY COUNTY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LEWIS
SHELBY
MARION
PIKE
CLAY
LINCOLN
MONT-GOMERY
CALLAWAY
WARREN
ST. CHARLES
ST. LOUIS CITY
OSAGE
GASCO-NADE
FRANKLIN
COLE
MARIES
CRAWFORD
WASHING-TON
PHELPS
PULASKI
IRON
ST. FRANCOIS
MADISON
REYNOLDS
BOLLIN-GER
CAPE GIRARDEAU
SHANNON
WAYNE
SCOTT
CARTER
STODDARD
BUTLER
MISSIS-SIPPI
HOWELL
OREGON
RIPLEY
NEW MADRID
PEMISCOT
DUNKLIN
OZARK
TANEY
BARRY
STONE
NEWTON
MCDONALD
BARTON
JASPER
VERNON
BATES
CASS
JACKSON
PLATTE
BUCHANAN
DEKALB
CLINTON
CALDWELL
CARROLL
RAY
LIVING-STON
GRUNDY
MERCER
PUTNAM
SULLIVAN
LINN
CHARITON
RANDOLPH
MONROE
SHELBY
MARION
RALLS
PIKE
AUDRAIN
MONT-GOMERY
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WEBSTER
WRIGHT
TEXAS
DENT
PULASKI
PHELPS
MILLER
CAMDEN
MORGAN
BENTON
HICKORY
ST. CLAIR
HENRY
JOHNSON
LAFAYETTE
SALINE
PETTIS
BATES
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JACKSON
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BUCHANAN
ANDREW
HOLT
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development applications, and for incorporating the needs of the SMA's into any permitted activities after receiving leasing consent from the Federal SMA. In Missouri, a preliminary Federal minerals inventory indicates there are approximately 2,150,004 acres of Federal minerals administered by the BLM where the surface is administered by other Federal SMA's (see Table 2).

TABLE 2

Federal Mineral Ownership In Missouri

By Surface Management Agency[1]

AGENCY	Acres
U.S. Forest Service	1,364,675
Corps of Engineers	539,061
Other Military	65,705
National Park Service	133,599
Other Federal Agencies	46,964

[1]Does not include "split estate" acreage. Acres shown are surface acres and may or may not reflect mineral estate.

Issuance of mineral leases or permits for these acres will be accomplished through other documentation. The status of various plans or environmental assessments addressing consent to lease has not been established. Consent to lease must be obtained from the various surface management agencies prior to issuance of any mineral leases or permits.

D. Implementation

Actions undertaken to implement the decisions reached in this plan will require further environmental analysis. For example, prior to disposal of any public land surface estate, the proposal will be analyzed in a combined land report/environmental assessment. Likewise, potential mineral development authorizations will undergo further environmental review prior to approval.

E. Modification

This plan may be amended, if necessary. Monitoring results, new data, and new or revised policies will be evaluated to determine whether an amendment is needed. Any change in circumstances or conditions that affect the scope, terms, or conditions of the plan may warrant an amendment. In all cases, a proposed action that does not conform with the plan and warrants further consideration before a plan revision is scheduled will require an amendment. The amendment process is similar to that for preparing a planning analysis but the scope of information, analysis and documentation is more limited.

This planning analysis may be revised when it becomes outdated or otherwise obsolete. A plan revision, when necessary, involves the preparation of a new planning analysis for the entire State of Missouri.

The public and other agencies will be included in the amendment and revision process to the appropriate extent.

F. Maintenance

This plan will be updated as necessary to keep it current without changing its scope or intent. Plan maintenance may not affect decisions, conditions, terms, or level of resource use or restrictions from that prescribed in the plan. Maintenance activities may consist of posting new information or refining an analysis or making minor changes.

G. Valid Existing Rights

This planning analysis can not repeal valid existing rights on public lands surface or mineral estate. Valid existing rights are those claims or rights to public lands that take precedence over the actions in this planning analysis. For example, an individual may have a valid claim to Federal surface but the ownership is in dispute. Or, there may be an existing Federal oil and gas lease.

II. DECISIONS

A. Introduction

This section of the planning analysis is divided into two major sections - Lands and Minerals. Each of those sections is further subdivided into the following: 1) Objective; 2) Decision; 3) Rationale; 4) Implementation Actions; and 5) Support. The information contained in the decision, implementation actions, and support actions will be used to develop future budgets for implementation purposes.

B. Lands

1. Objective

To dispose of isolated, small tracts of public land that are difficult and uneconomical to manage.

2. Decision

All BLM surface tracts are categorized for disposal and will be further evaluated on a tract-by-tract basis against the criteria in Appendix A. Appendix A describes surface disposal options and criteria. Where possible, the preferred method of disposal will be by transfer to another public body or non-profit entity. Where subsequent site-specific analysis reveals no interest by another public or non-profit body, BLM tracts may be offered through sale or exchange to private ownership through a three-way exchange.

Tracts will be retained under BLM administration only where sensitive or unique resource values merit continued public management and no other public or non-profit entities are available or willing to assume jurisdiction. Management of retained tracts will be custodial. Preference for sale or transfer may be readjusted based on policy changes, as well as on site-specific analysis. If additional BLM surface tracts are discovered in the future, they will also be categorized for disposal and evaluated against the criteria in Appendix A.

3. Rationale

The eight upland tracts and one island totaling about 399.7 acres are small isolated tracts of public domain that are difficult and uneconomical to manage. These tracts are the only remaining portions of the public domain in Missouri. The vast majority of the State of Missouri was placed in private or State ownership during settlement. Management of these tracts by a state agency or the private sector would be in the public benefit.

4. Implementation Actions

The following actions will be necessary to implement this decision:

a. Each tract will undergo an on-site inspection for renewable and mineral resource values and uses. Further, various State and Federal agencies will be contacted concerning these resources. Each tract will also be evaluated for occupancy or title conflict situation.

b. Any unauthorized use, Color-of-Title, or title conflict situation will be resolved prior to any other implementing actions.

c. A combined land report/environmental assessment will be prepared for each tract (or group of tracts if appropriate). The purpose of that document will be to present findings, recommend a preferred transfer option with appropriate rationale, and to evaluate the potential effects of the preferred transfer option and reasonable alternatives. Copies of the combined land report/environmental assessment will be made available upon request. The various transfer options include:

(1) Recreation and Public Purposes Act lease or sale (which includes transfer to a State agency);

(2) Withdrawal on behalf of another Federal agency;

(3) Exchange between another Federal agency and a third party (private, State or local government);

(4) Color-of-Title patent for occupants who satisfy the requirements of the Color-of-Title Acts; and

(5) Sale.

d. Prior to any final transfer, a Notice of Realty Action (NORA) will be published in the Federal Register and general circulation (local) newspapers to provide 45 days public notice and opportunity to comment on the action.

5. Support

Support will be required from the minerals staff to prepare minerals evaluation reports and from other specialists to obtain necessary critical resource clearances. The three known islands have previously been surveyed. Should additional islands or upland tracts be discovered, State Office support may be required to conduct surveys.

C. Minerals

1. Objective

To make Federal minerals available for exploration, development, and production; to avoid health and safety hazards; to protect important, sensitive resource values from unacceptable impacts; and to minimize ~~unnecessary~~ impediments to mineral leasing and development from sensitive resource protection and hazard avoidance.

2. Decisions

All Federal mineral ownership is available for exploration and development except where legal or intergovernmental consistency requirements, administrative or Congressional designations, or surface resource sensitivity prohibit such activities. None of these situations are known to exist.

The minerals management areas and objectives in Appendix B are adopted to guide minerals management in Missouri. The boundaries of the management areas (Map A) may be adjusted based on new resource data. If additional Federal mineral ownership is revealed in the future, it will also be managed within these guidelines. All exploration and development proposals will be evaluated on a site-specific basis.

3. Rationale

This will provide for exploration and development of Federal mineral resources in an environmentally and economically sound manner. Further, environmental review at the actual leasing and, where appropriate, the development phase will provide needed protection to environmental and health values.

4. Implementation Actions

The following actions will be necessary to implement the minerals decisions.

a. Subsequent to plan approval, action planning will be pursued on a commodity-specific basis to develop specific management guidelines within each management class. Action planning will prioritize and schedule lease sales where appropriate.

b. The comprehensive inventory of Federal mineral ownership status, currently underway in coordination with State and other Federal agencies, will continue in order to determine exact locations and descriptions of mineral ownership and its availability for development.

c. Mineral leasing and development authorizations will in every case be preceded by environmental analysis, and if appropriate, consultation with the surface owner and joint on-site inspections to evaluate the effects of the proposed action and any reasonable alternatives. Environmental analyses will be done at the leasing and pre-drilling stages for oil and gas development.

d. Stipulations or conditions of approval will be attached to authorizations as appropriate to ensure resource conservation, to protect threatened or endangered species or cultural resource values, and to otherwise comply with applicable laws and regulations.

e. Periodic monitoring and inspections will be conducted to ensure compliance with the terms of authorizations and to mitigate any unforeseen consequences of development.

APPENDIX A

Surface Disposal Options and Criteria

The Bureau of Land Management (BLM) has been concerned with the need for land adjustment for many years. The public land pattern in Missouri is fragmented, with only three islands scattered in two counties. Additional small tracts of public land may be discovered in the future.

BLM is authorized to enter into land adjustments through the Federal Land Policy and Management Act of 1976 (FLPMA) and other public land laws. The principle also applies to adjustments in the mineral estate of lands, particularly where there is a split-estate situation with federally owned mineral estate and privately owned surface, or vice versa.

Major types of land adjustment concerning BLM in the planning area are:

1. Recreation and Public Purposes Transfers;
2. Public Sales;
3. Withdrawals;

In implementing the Plan in Missouri, BLM will be especially concerned with improving management of public values and resources. This involves more than simply disposing of isolated parcels. The Bureau's disposal decisions will be made after site-specific analysis and study of land use potential.

Realty actions are designed to meet FLPMA and NEPA requirements, and to implement BLM planning decisions effectively. The overall goal of the program is to improve public land management through a variety of methods, including sale, exchange, or other methods of transfer.

I. Land Disposal and Retention Criteria

These criteria are designed to provide the manager flexibility in responding to circumstances which dictate the final disposition of each tract. Although the proposed plan calls for disposal of all tracts in Missouri, each tract will be evaluated against the following criteria to confirm that disposal is appropriate and to determine the method of disposal.

A. Disposal Criteria

Lands with the following characteristics will be sold, exchanged or transferred in the public interest:

1. Lands of limited or no public value.

2. Widely scattered parcels which are difficult or uneconomical for BLM to manage with anything beyond minimal custodial administration.

3. Lands with high public values proper for management by other Federal agencies, or State or local government or Indian tribes.

4. Lands which will serve important public objectives (such as community expansion) as provided in the Federal Land Policy and Management Act (FLPMA) Sec. 203(a)(3).

5. Lands which are not required for specific public purposes.

6. Lands where disposal would increase the range of economic opportunities provided to the general public.

7. Lands in which the highest value or most appropriate long-term use is agriculture, or commercial or industrial development.

8. Lands without legal public access.

B. Retention Criteria

Lands with the following characteristics will remain in Federal ownership and be managed by BLM:

1. Public lands where disposal of the surface would unnecessarily interfere with the logical development of the mineral estate, e.g., surface minerals, coal, phosphate, known geologic structures, etc.,

2. Public lands withdrawn by BLM or other Federal agency for which the purpose of the withdrawal remains valid, and

3. Public lands that have been determined to possess unique and outstanding resource values and an appropriate receipient cannot be found to manage these lands.

APPENDIX B

Minerals Management Areas and Objectives

Determination of appropriate levels of management activity on the Federal lands depends largely on the amount of geologic information available. Such information is not usually dispersed evenly over a region the size of a state, but is concentrated in areas of mineral production or known potential, in areas of good exposure of rock units, or in areas containing important scientific, recreational, or other cultural values. Thus, large areas of any given state are classified on the basis of geologic inference.

The classifications presented here are not generally of sufficient detail for use as actual mineral potential evaluations. If mineral related activities or conveyance/disposal actions are proposed for a tract of Federal land, detailed studies, which may involve exploratory operations, must be undertaken to assess the area-specific value of any minerals present.

Defined here are the classes of resource potential used by BLM. Major mineral commodities addressed in the District's statewide minerals report are classified according to these categories and are also presented. A statewide map showing proposed classification areas is included.

I. Class I Management Area (High Resource Potential)

A. Definition

1. Those areas known to contain mineral deposits of present economic interest, including exploration or production interest.

2. Those areas suspected to contain mineral deposits based on geologic similarities to areas of present economic interest.

B. Objectives

1. Retain minerals in Federal ownership.

2. Maintain availability of Federal Mineral Ownership for mineral exploration and development, contingent upon protection of surface values and establish priorities for leasing.

3. Cooperate with and assist other Federal agencies, State and local government bodies and other entities in mineral leasing and regulatory activities.

4. Lease all federally owned mineral rights within Known Geologic Structures (KGS).

5. Determine Federal mineral ownership in response to prospecting permit applications.

6. Conduct valuable discovery and preference right leasing determinations in support of leasing decisions made by the Eastern States Office.

II. Class II Management Areas (Moderate Resource Potential)

A. Definition

1. Those areas known to contain mineral deposits of past economic interest.

2. Those areas suspected to contain mineral deposits, based on known occurrences, appropriate geological settings, or geological similarities to areas of past economic interest.

B. Objectives

1. Retain minerals in Federal ownership.

2. Make Federal lands available for oil and gas exploration (through non-competitive leasing) and solid mineral prospecting contingent upon environmental and procedural reviews.

3. Determine Federal Mineral Ownership and resolve mineral title conflicts in response to prospecting permit and oil and gas non-competitive lease application.

4. Pursue curative actions for existing legislation to allow leasing and development of solid minerals under Public Domain.

III. Class III Management Areas (Low Resource Potential, and Common Variety Minerals and Mineral Materials)

A. Definition

Those areas having little or no mineral production potential, although minerals or mineral materials may be present in subeconomic amounts.

Those areas known or suspected to contain deposits of sand, gravel, stone, clay, or other commodity which is useful and valuable for purposes which could be served by other varieties of the same commodity, and of no higher intrinsic value than similar material from other deposits.

[Value may be significantly altered by deposit size or setting, by depth of overburden, by distance to transportation networks, markets, or sites of use, or by other external forces. The difference between common and uncommon varieties of minerals is important and difficult to determine in some cases. The Class III Management Areas which denote deposits of common variety (salable) minerals may contain Class I or II Management Areas. Should uncommon varieties of sand, gravel, stone, or clay be discovered on Federal lands, those lands will be treated as Class I or Class II Management Areas.]

B. Objectives

1. Federal mineral estate may be available for disposal, contingent upon site-specific mineral inventory to be made prior to disposal.

2. Requests for sale of Federal common variety minerals will be processed on a case-by-case basis. No attempts will be made to generate interest for the purchase of Federal common variety mineral deposits.

3. The Bureau will maintain responsibility for regulation of activities for common variety minerals on public domain land.

4. The Forest Service will maintain responsibility for sales and regulation of activities for common variety minerals on National Forest system lands.

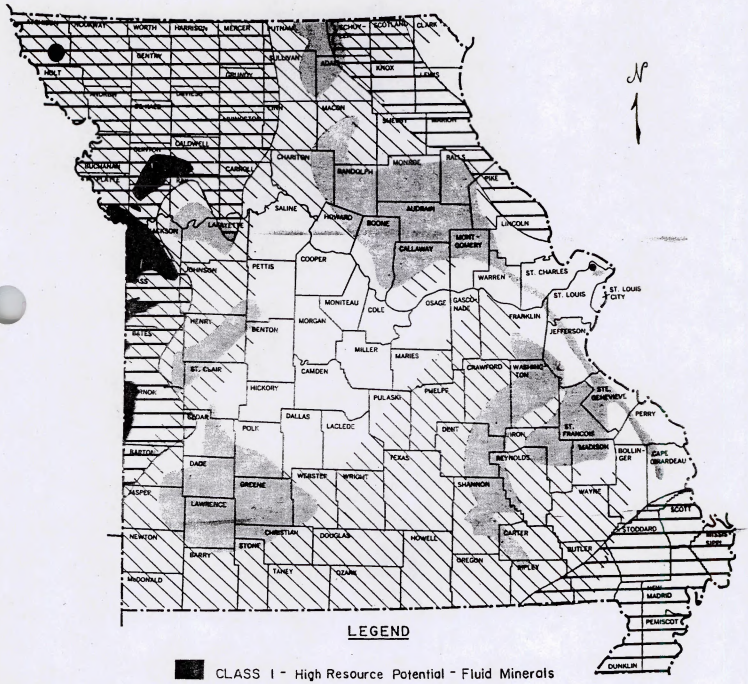
5. Determine Federal mineral ownership and its status (leased, non-leased or permitted).

6. Resolve mineral title conflicts in response to commodity sales requests.

Missouri Mineral Resource Classification Map

Scale 1:3,000,000
1 inch equals approximately 48 miles

10 0 10 20 30 40 50



LEGEND

- CLASS 1 - High Resource Potential - Fluid Minerals
- CLASS 1 - High Resource Potential - Solid Minerals
- CLASS 2 - Moderate Resource Potential - Solid Minerals
- CLASS 2 - Moderate Potential - Oil & Gas
- CLASS 3 - Low Resource Potential - Solid Minerals / Oil & Gas

IN REPLY REFER TO:
MDO:LJ
1616.6 MO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
MILWAUKEE DISTRICT OFFICE
P.O. BOX 631
MILWAUKEE, WISCONSIN 53201-0631

Here is the Bureau of Land Management's Proposed Plan and Environmental Assessment for Missouri. This document proposes decisions pertaining to Federal mineral leasing and to transfer or disposal of approximately 400 acres of Federal public lands. All Bureau-admininstered lands in Missouri are proposed for disposal. The plan also describes minerals management areas and presents management objectives for approximately 13,375 acres of "split-estate" Federal minerals. These minerals are owned by the United States Government, but are under surface owned by the State, counties or private individuals.

The Bureau of Land Management (BLM) announced the initiation of this planning effort in June 1985. Bureau ownership data and maps were sent with the initial letter. On February 17, 1986, the Bureau sent out a summary of its lands and minerals management situation which included a preview of this plan for public review.

I have asked the State Director, Eastern States Office, Bureau of Land Management, to approve this Missouri Plan under the provision of the Federal Land Policy and Management Act of 1976 and applicable regulations. Upon approval, the Plan will guide future management of the Bureau's lands and minerals in Missouri.

Any person who participated in the planning process and has an interest which is or may be adversely affected by approval of this plan may protest its approval. A protest may raise only those issues which were submitted during the planning process. If you wish to protest, you must prepare a statement of the issue(s) or parts of the plan being protested and a concise statement explaining why the State Director's approval of the Plan is believed to be wrong. Copies of any documents submitted previously in the planning process should be included, along with the name, address, telephone number and interest of the person filing the protest. Protests must be made in writing to Missouri Plan Protest, Director (202), U.S. Bureau of Land Management, Washington, D.C. 20240 by December 31, 1986.

If, on the other hand, you would merely like to comment on the Proposed Plan and EA, you may write to the District Manager, U.S. Bureau of Land Management, P.O. Box 631, Milwaukee, Wisconsin 53201. The comment deadline is December 31, 1986.

Thank you for your participation in this planning effort. We appreciate your interest in the management of the public lands.

Sam R. Taylor

United States
Department of the Interior

BUREAU OF LAND MANAGEMENT
EASTERN STATES OFFICE
MILWAUKEE DISTRICT
P.O. BOX 631
MILWAUKEE, WISCONSIN 53201

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OFFICIAL BUSINESS

The Bureau of Land Management

The Bureau of Land Management, an agency of the U.S. Department of the Interior, administers America's public domain lands and its Federal mineral resources.

Well-known in the Western United States where it manages vast rangelands and extensive mineral resources, the Bureau has fewer holdings in the East. The Bureau is the successor to the General Land Office, which disposed of most of the public domain during the nineteenth century through statehood grants, homestead claims, sales and a variety of special Acts of Congress. Now, most of the public domain tracts which remain in the Eastern half of the country are primarily small islands in Michigan, Minnesota and Wisconsin. A very few small tracts are widely scattered in several other Eastern states.

The primary mission of the Bureau in the East is minerals management. The Bureau issues exploration permits, leases and drilling permits, and oversees operations, for all Federally-owned mineral estate regardless of surface ownership. Most of the Eastern Federal minerals are under the National Forests, managed by the Forest Service, U.S. Department of Agriculture. Some Federal mineral holdings underlie surface owned by state or local governments or private individuals. Policy and procedures require environmental analysis and surface owner consultation prior to all permitting activities.

Another active Bureau program is the wild horse and burro adoption program. Excess wild horses and burros from the Western rangelands are available for adoption by the public at nominal fees. Adoptions are conducted periodically at locations throughout the East.

To adopt a wild horse or burro, or for further information on other Bureau of Land Management activities in the East, write to the Milwaukee District Manager at the address on this flyer.

The Milwaukee District of the Eastern States Office, Bureau of Land Management, has jurisdiction for public domain land and Federal minerals in the following 20 states: Connecticut, Delaware, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Wisconsin and West Virginia.

IN REPLY REFER TO:

United States Department of the Interior

1616.6 MO

BUREAU OF LAND MANAGEMENT
MILWAUKEE DISTRICT OFFICE
P.O. BOX 631
MILWAUKEE, WISCONSIN 53201-0631

MISSOURI: PROPOSED PLAN AND ENVIRONMENTAL ASSESSMENT

Finding of No Significant Impact

The proposed Missouri Plan and Environmental Assessment document (Control No. ES-85-001) has been prepared under my direction. On the basis of the analysis and consultation summarized therein, I have concluded that no significant environmental effects are likely to occur if the proposed plan is implemented. Therefore, no environmental impact statement will be prepared.

Bert Rodgers

Bert Rodgers
District Manager

MISSOURI

Proposed Plan and Environmental Assessment

Prepared by:

U.S. Department of the Interior
Bureau of Land Management

September 1986

State Director, Eastern States Office

MISSOURI

Proposed Plan and Environmental Assessment

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MISSOURI

PROPOSED PLAN AND ENVIRONMENTAL ASSESSMENT

I. INTRODUCTION

This document contains proposed resource management decisions for Bureau of Land Management (BLM) administered lands and minerals resources in the State of Missouri. The plan (Section III.B.) if approved will guide the future management of BLM administered resources. This document, consistent with provisions of 43 CFR 1610.8(b) and other applicable regulations, also contains an environmental assessment (EA). The EA evaluates and compares the probable effects of the proposed plan and other reasonable alternatives.

The primary reason for preparing the Missouri plan is to initiate an active management posture with regard to public domain lands and federal minerals. Public domain (PD) lands are those which have never left federal ownership.

The public domain tracts consist of eight tracts of BLM-administered surface in Missouri totaling approximately 399.70 acres. These are tracts which were left in federal ownership after the other more desirable lands were placed in state or private ownership during settlement. The tracts include both surface and mineral estate ownership. The surface acreage is located in eight Missouri counties.

The federal mineral ownership (FMO) under consideration in this plan consists of numerous scattered tracts of federal mineral estate under surface owned by the state, local units of government, and the private sector. This "split-estate" FMO totals approximately 13,375.4 acres. The public domain mineral estate (above) is also considered in this plan. Thus, the total FMO under consideration is approximately 13,775.1 acres. This acreage is scattered throughout 59 Missouri counties.

It is important to recognize that this planning effort is not a land use plan for private, state, or other (non-BLM) federal agency resources. In Missouri, the majority of BLM administered mineral ownership as mentioned above is "split-estate". BLM administers part or all of the mineral estate, but has no jurisdiction over the surface estate. Since BLM does not manage the surface over these federal minerals, the Missouri plan will not contain decisions pertaining to use of "split-estate" surface. In addition to FMO acreage assessed in this document, the BLM also has minerals management responsibility on approximately 2,150,000 acres of other federal agency administered surface (e.g., Forest Service, Park Service, Fish and Wildlife Surface, Corp of Engineers, Department of Defense) in the state.

Under the BLM minerals leasing program, the federal surface managing agencies are responsible for concurring in mineral leasing and development. BLM is actively working with other federal agencies to improve federal mineral ownership records and to ensure compatibility between agency activities and development of the mineral resource. Other federal agency plans, and environmental or other project documents, are reviewed in order to assess how proposed surface management actions will affect development of the mineral resource. For example, frequent interagency coordination between BLM and the Forest Service concerns their planning efforts with regards to minerals development. Criteria have been prepared to evaluate the treatment of minerals development in planning efforts on the Mark Twain National Forest.

The surface managing agencies (SMA's) retain full authority to manage their programs and surface resources, even though BLM administers the underlying mineral estate.

Present management of BLM surface lands and mineral resources in Missouri is custodial. Custodial management is further explained in Section III.C., Page 8.

II. PLANNING ISSUES AND DECISION CRITERIA

The two planning issues addressed in the Missouri plan are land disposal and mineral development. The basis for resolution of these issues were addressed in the Missouri preplan and other planning documents which are available for public inspection at the Milwaukee District Office.

The Missouri plan has been prepared in accordance with the Federal Land Policy Management Act (FLPMA) of 1976, Bureau planning regulations at 43 CFR 1601 et. seq., Bureau Manual Sections 1601-1632 and State Director Guidance for Planning in the Eastern States Office (March 1985). Existing information, developed chiefly during the management situation analysis for this planning effort, has been used as much as possible.

A. Planning Approach

Several characteristics of BLM surface and mineral resources determine the specific planning approach. These are:

1. The lack of significant BLM surface ownership in Missouri. Planning is based on best available information. Site visits were made to all Missouri surface tracts during July 1985. In addition, extensive coordination with state and federal agencies attempted to determine the potential for occurrence of sensitive resource values for both surface and mineral estate administered by BLM. After completion of the plan, implementation will be on the basis of land reports with site-specific analysis.

2. The plan will establish management areas, objectives and constraints for development of approximately 399.70 acres of federal minerals under public land surface administered by BLM and approximately 13,375.4 acres of "split-estate" federal minerals.

3. There are approximately 2,150,000 acres of federal minerals under surface administered by other federal agencies (primarily the Forest Service, Park Service, Corps of Engineers and other Department of Defense lands). These other agencies are responsible for consenting with mineral leasing and development subject to such constraints as they may determine necessary to ensure compatibility with their projects, programs and activities.

4. This planning effort does not make decisions for the management of federal minerals under surface controlled by other agencies. BLM is responsible for management of this federal mineral resource, for evaluating mineral development potential and environmental impacts, for issuing decisions on mineral development applications, and for incorporating the needs of the surface agency into any permitted activities.

5. BLM is actively encouraging coordination with other agencies in Missouri in order to improve federal mineral ownership (FMO) records and to provide for compatibility between agency activities and development of mineral resource.

6. The federal mineral estate is generally unavailable for disposal through sale unless it can be demonstrated that either (a) there are no known mineral values in the land, or (b) the reservation of the mineral rights is interfering with or precluding appropriate non-mineral development of the land and such development is a more beneficial use than mineral development. The determination of such beneficial surface uses is guided by the requirements of Federal Land Policy and Management Act Sec. 209 and applicable regulations. Therefore, sale of federal minerals has not been addressed in this planning effort.

B. Mineral Development

The Missouri plan will delineate areas available for leasing or development and will indicate requirements for coordination with surface owners and restrictions needed to protect surface resource values. Minerals development in Missouri will be coordinated with other federal, state and local land use plans.

Missouri has been excluded from the provisions of the Mining Law of 1872. Although BLM does not have authority to permit development of public domain hard-rock minerals within the state, it does administer hard-rock leasing and development on acquired lands under

the authority of the Mineral Leasing Act for acquired lands. Oil and gas leasing and development are governed by the rules of 43 CFR Group 3100.

C. Disposal of BLM Surface

Disposal, for purposes of this plan, is defined as any divestiture of surface management responsibility by BLM. Several methods of disposal are available to the Bureau, including transfers under the Recreation and Public Purposes Act (R&PP), exchanges utilizing a third party resulting in a reduction of BLM acreage, public sales, patents under Color-of-Title, and transfers to another federal agency through withdrawal.

The policy of the Bureau regarding land disposal in the Eastern States was expressed by the Eastern States Director in March 1985:

> "The primary mission of the Eastern States Office is minerals management within the Bureau's multiple-use management context provided by FLPMA.
>
> "Public land surface ownership will be transferred on a systematic, planned basis where such transfers will not adversely affect use of economically significant mineral resources, or where surface resource values exceed minerals values. This transfer is to be accomplished expeditiously using a streamlined planning process.
>
> "Decisions to retain or dispose of federal lands shall be made during the planning process. Decisions as to the most appropriate method of disposal may be made during planning or, with adequate public notification, during the preparation of land reports and environmental analysis.
>
> "In cases where appropriate recipients for transfer of surface ownership cannot be found, the Bureau may either retain federal ownership and undertake custodial management until such time as an appropriate recipient can be found, or offer the land for public sale. In exceptional circumstances, where important public interest values are identified and no other appropriate agency is likely to be available for management, the Bureau may retain federal ownership and undertake a purposeful management program.
>
> "In all cases, the District Managers shall coordinate planning with other federal agencies, state and local governments, and Indian tribes and shall provide appropriate means for public information and involvement". (Instruction Memorandum No. ES-85-92)

A parcel of BLM land cannot be disposed of unless the requirements of numerous laws and executive orders are satisfied. The Federal Land Policy and Management Act of 1976 provides for sales (Sec. 203), withdrawals (Sec. 204), exchanges (Sec. 206), and Recreation and Public Purposes Act leases and sales (Sec. 212).

Procedural requirements include cadastral survey, land appraisal, land report, adjudication, mineral interference evaluation and land title verification. These requirements will be fulfilled following planning, during casework processing.

III. MANAGEMENT ALTERNATIVES

Both the National Environmental Policy Act (NEPA) regulations and BLM resource management planning regulations require the formulation of alternatives. Each alternative represents a reasonable plan to guide future management of public land and resources. One alternative must represent "no action", which means a continuation of present levels or systems of resource use.

Federal laws, regulations and executive orders require special consideration for certain public values under any given alternative. These include floodplains, wetlands, threatened and endangered species, and cultural resource sites. Mineral resource development is also governed by extensive laws and regulations. The following alternatives address only retention or disposal of BLM surface lands, and management objectives for mineral potential areas. The alternatives do not propose any changes in management from that required by law or regulation.

A. Alternatives Eliminated From Further Study

The following two alternatives were considered as possible methods of resolving specific issues identified in the Missouri planning effort, but were eliminated from further study due to technical, legal, and/or other constraints.

1. Surface Retention and Active Management

Retention and active management of federal surface by BLM under foreseeable funding and staffing levels is not considered a reasonable alternative from practical, policy or sound resource management point of view.

2. Mineral Estate Disposal

Sale of federal mineral estate to private persons is so constrained and limited by Section 209 of the Federal Land Policy and Management Act that it cannot be considered a reasonable areawide alternative. (Although this alternative will not be considered further, Section 209 applications will continue to be processed on a case-by-case basis.)

B. Preferred Alternative - The Proposed Plan

1. Lands Disposal

a. Proposed Decision

All BLM surface tracts are categorized for disposal and will be evaluated on a tract-by-tract basis against the

criteria in Appendix A. Appendix A describes surface disposal options and criteria. Where possible, the preferred method of disposal will be by transfer to another public body or non-profit entity. Where subsequent site-specific analysis reveals no interest by another public or non-profit body, BLM tracts may be offered through sale or exchange to private ownership. Tracts will be retained under BLM administration only where sensitive or unique resource values merit continued public management and no other public or nonprofit entities are available or willing to assume jurisdiction. Management of retained tracts will be custodial. Preference for sale or transfer may be readjusted based on policy changes, as well as on site-specific analysis. If additional BLM surface tracts are revealed in the future, they will also be evaluated and categorized for disposal.

Active case processing for the R&PP transfer of Tower Rock (a BLM surface tract in Perry County) to the Missouri Department of Conservation will be completed in Fiscal Year 1987.

b. Implementation

The following actions will be necessary to implement this alternative:

(1) Subsequent to plan approval, each tract will be scheduled for an on-site inspection and evaluation of renewable and mineral resource values and uses, resolution of occupancy or title conflict situations if any, and potential for transfer or sale. Sale terms and deed restrictions, if necessary, will reference applicable local or State land use requirements.

(2) Any unauthorized use (occupancy), Color-of-Title or title conflict situation will be resolved prior to any other implementing action.

(3) A land report will be prepared for each tract to present findings and recommend a preferred transfer option. The various transfer options available include:

(a) Recreation and Public Purposes Act lease or sale;

(b) Withdrawal on behalf of another federal agency;

(c) Exchange between another federal agency and a third party (private, state or local government);

(d) Color-of-Title patent for occupants who satisfy the requirements of the Color-of-Title Acts; and

(e) Sale.

(4) A site-specific environmental analysis will be prepared for each tract (or related groups of tracts) to evaluate the potential effects of the preferred transfer option and reasonable alternatives.

(5) Prior to any final transfer, a Notice of Realty Action (NORA) will be published to provide 45 days public notice and opportunity to comment on the action.

2. Minerals Development

a. Proposed Decision

The minerals management areas and objectives in Appendix B are adopted to guide minerals management in Missouri. The boundaries of the management areas (Map A) may be adjusted based on new resource data. If additional federal mineral ownership is revealed in the future, they will also be managed within these guidelines. All exploration and development proposals will be evaluated on a site-specific basis.

All federal mineral ownership is available for exploration and development except where legal or intergovernmental consistency requirements, administrative or Congressional designations, or surface resource sensitivity prohibit such activities.

There are no mineral withdrawals administered by BLM in the State. All withdrawals are under the administrative jurisdiction of other agencies.

b. Implementation

The following actions will be necessary to implement this alternative:

(1) Subsequent to plan approval, action planning will be pursued on a commodity-specific basis to develop specific management guidelines within each management class. Action planning will prioritize and schedule lease sales where appropriate.

(2) The comprehensive inventory of FMO status, currently underway in coordination with state and other federal agencies, will continue to determine exact locations and descriptions of mineral ownership and its availability for development.

(3) Mineral leasing and development authorizations will in every case be preceded by environmental analysis, consultation with the surface owner and joint on-site inspections if appropriate, to evaluate the effects of the proposed action and any reasonable alternatives. Environmental analyses will be done at the leasing and pre-drilling stages for oil and gas development.

(4) Stipulations or conditions of approval will be attached to authorizations as appropriate to ensure resource conservation, to protect threatened or endangered species or cultural resource values, and to otherwise comply with applicable laws and regulations.

(5) Periodic monitoring and inspections will be conducted to ensure compliance with the terms of authorizations and to mitigate any unforeseen consequences of development.

C. "No Action" Alternative

A "no action" alternative (no change from present management) will be evaluated in the environmental assessment for both lands and minerals, and will be considered the only other reasonable alternative.

1. Lands

BLM will retain all tracts under custodial-type management with processing of applications for Recreation and Public Purposes, public sales, withdrawals or transfers as needed on a case-by-case basis. Unauthorized uses and title conflicts will be cleared up as problems arise on a case-by-case basis.

2. Minerals

BLM will process non-competitive oil and gas lease applications by industry or private individuals on a case-by-case basis. New geologic structures will be identified by industry or by BLM only as they become apparent through the non-competitive leasing process. Hard-rock prospecting permits will be processed on a case-by-case basis.

IV. AFFECTED ENVIRONMENT

BLM surface resource data summarized in this environmental assessment is taken from the Analysis of the Management Situation in Missouri, including District planning files, detailed tract inventory surveys, previous Bureau planning documents and supporting studies. Minerals information contained in the assessment is taken from the District report Geology, Mineral Resources and Mineral Production Potential of the State of Missouri, and supporting mineral potential maps (1:500,000 scale). The Missouri Summary of the Management Situation contains a brief resource description of BLM-administered land and mineral resource values. District geologic and land inventory records and other planning support documents are available for public inspection at the District Office.

A. BLM Surface Tracts

BLM surface ownership (Table 1) is limited to eight surface tracts in eight Missouri counties. The tracts are currently undergoing ownership status investigations.

Table 1
BLM Surface Ownership
Missouri

County	CCN*	Township	Range	Section	Acreage	Type
Howard	001	49N	16W	22	160.00	Upland
Jefferson	002	42N	5E	3	21.45	Upland
Macon	003	57N	15W	25	40.00	Upland
Miller	004	40N	12W	17	80.00	Upland
Morgan	005	41N	18W	28	40.00	Upland
Perry	006	34N	14E	20	0.70	River Island
St. Genevieve	007	39N	7E	18	17.75	Upland
Wayne	008	29N	6E	30	40.00	Upland

*CCN is the county control number assigned to each BLM tract.

Seven of the eight BLM tracts are upland tracts. These are level to moderately rolling, and consist of an interspersion of wooded areas and open prairie. Timber species typically found in the woody areas include oak-hickory or pine-oak associations. Understory species include sugar maple, blue ash, and chinquapin oak. Areas of open prairie typically contain grasses, sedges, legumes, composites, and other perennial forbs. The tract in Miller County is located in a floodplain and has wetland/riparian values. No federal or state listed endangered or threatened species are recorded as occurring on any of the tracts.

Resource management on BLM tracts in Jefferson, Morgan, and Perry counties would be enhanced through participation with eligible parties under the Recreation and Public Purposes (R&PP) Act. Upland tracts in Jefferson and Morgan counties lie adjacent to established recreation and wildlife management areas. The BLM tract in Jefferson County lies adjacent to a recreational camp which is operated by the South Side Lions Club of St. Louis. The recreational camp is operated for urban children. The BLM parcel in Morgan County is located immediately east of the Proctor Towersite State Wildlife Area. The wildlife area is administered by the Missouri Department of Conservation.

The remaining tract, Tower Rock, is a small island located in the Mississippi River. The island is formed of limestone, stands approximately 80 feet high at the normal river level, and supports a growth of small pine trees, oak, hickory, shrubs, and native grasses.

BLM records indicate that the Missouri Department of Conservation has applied for this parcel under the R&PP Act. The Tower Rock State Forest is located along the western bank of the Mississippi River, just west and south of the island. Tower Rock was listed on the National Register of Historic Places in 1970, by nomination of the Missouri State Park Board. Tower Rock does not appear to qualify as a wilderness study area. No final wilderness determinations have as yet been made.

A preliminary review of cultural resource information indicates no known archaeological or historical sites on any of the upland tracts. However, an intensive survey of cultural resources has not yet been performed for these tracts. There are no known paleontologic resources, and the likelihood of such occurrence is slight.

B. Minerals

Ownership

1. A description of known BLM mineral ownership in the State of Missouri is provided in Appendix A. BLM administers approximately 13,375 acres of federal mineral ownership (FMO) under state, county, or private surface ownership. This acreage is scattered throughout 59 Missouri counties. Individual parcels range from .5 acres to over 320 acres.

   In addition, approximately 2,150,000 acres of FMO administered by BLM underlie other federal agency surface. Federal surface managing agencies include the Forest Service, Fish and Wildlife Service, National Park Service, and the Department of Defense.

   THe FMO acreage data presented here is subject to change as new information is continually being made available. FMO records in the state involving non-federal surface ownership (state, county, and private ownership) are actively being updated and may yield some acreage changes. Coordination with other federal surface managing agencies may also yield acreage changes as these records are also being updated.

2. Inventory and Potential

   Missouri is divided into three physiographic regions--the Prairie, the Ozark Plateau and the Southeastern Lowlands.

   The Ozark Plateau occupies approximately one-third of the state and occurs in the central, southern, and eastern parts. This physiographic region is underlain by both sedimentary and igneous rocks. Outcrops of limestone with residual flint or chert, and sandstone are frequent. There has been a considerable amount of faulting and folding within the Ozarks, the most intense occurring in the St. Francois Mountain region.

   The Prairie occupies approximately two-thirds of the state and occurs in the western and northern parts. The portion north of the Missouri River was glaciated, while that south of the river was mostly unglaciated. This physiographic region is underlain by shales and then sandstones and, to the east, limestone strata along the Mississippi and Missouri Rivers. North of the Missouri River, the bedrock is covered by considerable glacial till, and along the two big rivers, windblown loess has been deposited to as much as 150 feet deep.

The Southeastern Lowlands is the smallest of the three physiographic regions; occupy in only about three thousand square miles. Located in extreme southeastern Missouri, it is abruptly set off from the Ozark Plateau. This area is covered to great depths by clay, sand, and gravel deposited by the Mississippi and Ohio rivers.

Missouri has a very diversified mineral industry. Commodities currently being produced include lead, zinc, copper, iron, barite, clay, coal, oil and gas, stone, sand, and gravel. The state presently accounts for 90 percent of all lead produced in the United States, and ranks number two, nationally, in the production of zinc.

Missouri is the largest producer of coal in the Western Interior Coal Basin. Coal-bearing strata of Pennsylvanian age underlies approximately 24,000 square miles of the northern and western section of the state. Presently, 875 million tons are classified as measured recoverable reserves capable of being mined under current economic conditions.

While Missouri does not possess large undeveloped reserves of oil and gas, speculation and exploration continues, predominately in the western part of the state. It is expected that Missouri's shallow oil and gas horizons and the correspondingly low drilling costs associated with exploring them will continue to attract interest and investments from the oil and gas industry.

Additional mineral potential information, by commodity, is included in Appendix D to this Summary, and in the Geology and Minerals Inventory Report for Planning in Missouri, April 1985, which is available on request.

3. Surface Resource Values

Sensitive surface values which must be given special attention during the management of BLM resources are described in Appendix E. Summary reports listing federal, state and local laws as well as responsible agencies and individuals have also been prepared. These reports will provide a basis for coordinating and clearing any surface disturbing activities within Missouri for the resources listed in Appendix E. Copies are available from the District upon request.

Subsequent to plan approval, tract specific leasing and development proposals must undergo an environmental analysis, consultation with appropriate federal and state agencies, and joint on-site inspections as necessary. In no instance will any undertaking begin without first completing an environmental analysis and obtaining consent from appropriate surface managing agencies.

Site-specific information provided by the subject agencies will be included as part of the consultation and environmental process.

C. Other Programs and Activities

The Bureau administers a number of other, ongoing programs which generally do not require management decisions through the planning process. These include the withdrawal review process, coordination with state governments in development of wildlife data base management procedures, and wild horse and burro adoption activities.

An area of concern to the Bureau nationally has been identification and control of hazardous waste sites on or affecting Bureau lands. A 1984 inventory of Bureau lands Districtwide showed no hazardous material sites (as listed by the U.S. Environmental Protection Agency or state agencies) on any Bureau lands, including those in Missouri.

Additionally, there were no known sites in the vicinity of any Bureau lands in Missouri.

A more complete description of ongoing Bureau programs, including payments and receipts by activity, may be found in BLM in the East, a report prepared by the Bureau's Eastern States Office. Single copies are available on request from either the Milwaukee District Office (P.O. Box 631, Milwaukee, Wisconsin 53201) or from the Eastern States Office U.S. Bureau of Land Management, 350 South Pickett Street, Alexandria, Virginia 22304.

V. ENVIRONMENTAL CONSEQUENCES

A. "No Action" Alternative

Under the "no action" alternative BLM minerals development would be less systematic, depriving federal, state, and local governments of potential revenue. It would also preclude coordinated information gathering on federal minerals, which might affect levels of development. Overall, lands and minerals actions would be processed on an as-needed basis. Planning coordination with state and local agencies would be piecemeal and unorganized.

For surface resource values, continued "no action" would not result in any significant difference in impacts since the same regulatory requirements apply in each case. However, retention by BLM without the capability for an action management posture would prolong the vulnerability of surface values to loss or damage by unauthorized use. Continued custodial management would delay resolution of title conflicts and questions over jurisdiction.

B. Preferred Alternative - The Proposed Plan

The environmental consequences are presented by resource category. Resource components that would not be impacted by the issues are not discussed.

1. Federal/State Threatened and Endangered Species

a. Lands

Initial Section 7(c) (Endangered Species Act of 1973) consultations were held with the U.S. Fish and Wildlife Service on all BLM surface tracts in Missouri. The following species list provided by the Service identified endangered species which may be present in counties where BLM surface tracts are located:

Endangered	County
Bald Eagle	Howard, Jefferson, Macon
Gray Bat	Miller, Morgan, Perry
Indiana Bat	St. Genevieve, Wayne

No designated critical habitat in these areas were identified by the Fish and Wildlife Service at this time.

The Fish and Wildlife Service has determined that the scope and nature of the land disposal alternative would not affect diurnal perches, roost sites, food sources, or other preferred habitat. The bald eagle, gray bat, or Indiana bat would not be affected.

Therefore, no significant environmental consequences are anticipated.

b. Minerals

Little is known of the surface resources on split-estate federal mineral ownership. However, the plan's procedures for mineral development require that an environmental analysis along with any surface owner consultation be initiated prior to any mineral leasing/development authorization. Certain clearances are also required from appropriate state and federal agencies. Appropriate stipulations developed as a part of case processing should ensure protection of resource values and mitigate impacts which may result from the implementation of the preferred alternative. Therefore, no significant environmental consequences are anticipated.

2. Floodplains

The Analysis of the Management Situation identified only two tracts to be within defined floodplains. A portion of the federal mineral ownership may also be classified as such. Executive Order 11988 requires federal agencies to avoid, to the extent possible, the long and short term impacts associated with occupancy or modification of floodplains. BLM will evaluate the potential effects of any implementing action it may take in a floodplain and will develop appropriate stipulations to ensure compliance with applicable federal, state and local laws or policies. No significant environmental consequences are anticipated.

3. Wetlands and Coastal Zones

Only one BLM surface tract includes wetland values. Undoubtedly some federal mineral ownership will also fall within this classification. Executive Order 11990 details the special considerations to be met when considering actions which may affect wetlands. Federal agencies are to take action to minimize the destruction, loss or degradation of wetlands and are required to preserve and enhance their natural or beneficial values when implementing programs affecting land use. Environmental analysis of implementing actions will ensure development of applicable stipulations to protect this critical resource, in accordance with current BLM policy. Therefore, no significant impacts are anticipated.

Federal lands are excluded from the Coastal Zone Management program, however federal agencies are required to make a consistency determination for federal programs within established Coastal Zone areas through consultation with the state.

4. Cultural and Paleontological Resources

The Analysis of the Management Situation identified all eight surface tracts with potential for cultural resources. Undoubtedly some federal mineral ownership will also contain cultural resource values. Thorough evaluations, including a determination of eligibility for the National Register of Historic Places and State Historic Preservation Officer clearances, will be conducted as part of the environmental analyses prior to any lands or mineral actions. Protection of historic and paleontological resources will be ensured in accordance with current Bureau policy. Therefore, no significant environmental consequences are anticipated.

5. Wilderness and Scientific or Natural Areas

The Analysis of the Management Situation identified one surface tract (Perry County) as adjacent to areas designated by Missouri as natural or scientific areas. Some federal mineral ownership may also fall under or lie adjacent to these areas. Prior to any lands or minerals action the location of the federal mineral ownership and surface parcels will be evaluated for their contribution to the quality of the management program implemented by the state. As a part of the case process appropriate stipulations will be developed to mitigate potential impacts resulting from specific lands and minerals development actions. Therefore, no significant environmental consequences are anticipated. No final wilderness determination involving Tower Rock has been made. Overall, no areas of critical environmental concern have been identified.

6. Wild and Scenic Rivers

The Analysis of the Management Situation identified no BLM islands located in existing or proposed National Wild and Scenic

Riverways. The identified tracts along with any federal mineral ownership will be evaluated for their contribution or impact to the quality of the management program being implemented. The Wild and Scenic Rivers Act established a National Wild and Scenic Rivers System to protect selected rivers for present and future generations. Recognizing the management thrust of this legislation specific lands or minerals actions would be evaluated accordingly, during the case process for their potential contribution or impacts. Therefore, no significant environmental consequences are anticipated.

7. Scenic and Visual Resources

No changes in surface use of disposed BLM tracts are expected to occur due to local zoning and land use controls. No significant environmental consequences are anticipated.

8. Prime or Unique Farmlands

None of the surface tracts met the criteria for prime farmlands. During development of FMO under State or private surface, any adverse impacts to prime or unique farmland will be mitigated in consultation with the surface owner. No significant environmental consequences are anticipated.

9. Air Quality and Water Resources

No changes in surface use of disposed BLM tracts are expected to occur due to local zoning and land use controls. Implementation of the Plan with respect to minerals development will require consultation with affected parties prior to any final actions. Therefore, no significant environmental consequences are anticipated.

10. Social and Economic Factors

Social and economic impacts resulting from tract disposal would be insignificant Statewide and regionally. Changes in the land use will have a localized effect insofar as the aesthetic or natural visual character, but no or almost no economic impacts, even locally, depending on the use in question. Minerals resources and its associated development, could have a significantly greater impacts, locally and regionally. Social and economic impacts resulting from mineral development will be addressed during environmental analysis for specific minerals development actions. Therefore, no significant environmental consequences are anticipated.

11. Public Use and Recreation

a. Lands

The objective is to keep critical resource values in public (non-BLM) ownership. Lands identified as having value for public use

and recreation should be managed for the benefit of the overall public. Only parcels of little or no public value will be offered for sale. Therefore, no significant environmental consequences are anticipated.

b. Minerals

Public lands overlying federal mineral ownership which is eventually developed for minerals will be at least temporarily lost to public use. The amount of land affected is expected to be minimal, and potential impacts will be evaluated during site-specific analysis for every proposed action. Therefore, no significant environmental consequences are anticipated.

C. Alternatives Comparison Summary

Selection of the preferred alternative would adopt an active management approach to BLM lands and mineral resources. This management orientation would stress multiple-use and integration of surface and subsurface resource management activities, and would provide management direction for resources of special importance.

The "no action" alternative would reflect continued custodial management of BLM-lands and resources. Lands and minerals actions would be processed on an as-needed basis. Unauthorized uses and title conflicts would be resolved on a case-by-case basis rather than a coordinated approach.

Neither the preferred alternative nor the "no action" alternative would have any significant environmental effects. However, the surface disposal provisions of the preferred alternative are environmentally preferable, since they would result in identification of surface values, and would attempt to place these values under appropriate management. The mineral development provisions would provide better management control over the pace of development and the mitigation of impacts than would be possible under the "no action" alternative.

Provisions in the proposed plan which direct lands disposal and minerals development do not represent an irreversible or irretrievable commitment of resources. Implementation of the plan will ensure that critical resource values are protected.

In the case of lands disposal, tracts will be transferred to other agencies which have the capability for long term active resource management and protection. Tracts which pass to the private sector will contain sale terms and deed restrictions which reference applicable local or state land use requirements. In the case of minerals development, the same laws and regulations will also ensure protection of critical resource values.

Mitigation measures developed as part of casework processing should ensure protection of resource values and mitigate any significant

environmental, economic or social impacts resulting from development proposals. In no instance will any undertaking begin without first completing an environmental analysis and obtaining consent from appropriate surface managing agencies. Site-specific information provided by the subject agencies together with any joint on-site inspections will be included as part of the consultation and environmental review process.

VI. CONSULTATION AND COORDINATION

A. Consistency

BLM planning efforts are required to be consistent with officially approved or adopted plans of other federal, state and local government agencies and Indian tribes. In the absence of an officially approved plan, BLM planning efforts are to be consistent with officially approved and adopted resource related policies and programs. Through meetings, scheduled mailings and personal contacts, all parties have been kept appraised of the Missouri planning effort.

Under the consistency provisions, the proposed Missouri plan is presumed to be consistent unless the District Manager has been notified in writing of an apparent inconsistency. Consultation and coordination with all affected parties have identified no inconsistencies.

Implementation of the plan requires public notification and consultation prior to any final actions. Casework processing for lands disposal actions requires publication of a Notice of Realty Action (NORA). The NORA provides 45 days public notice and opportunity to comment on the proposed action. Implementation actions for minerals require consultation with affected parties (surface owner, state or local government agencies) prior to the issuance of mineral leasing and development authorizations.

Some inconsistencies may emerge during casework processing for lands disposal or minerals development. These will be discussed and negotiated within the limits of federal law in each case.

B. Public Participation

Over 358 public agencies, organizations, industry representatives and persons were individually contacted at the following planning steps:

1. June 1985 — Initiation of resource planning in Missouri.
2. February 1986 — Release of the Missouri Summary of the Management Situation.
3. August 1986 — Release of the Missouri Proposed Plan and Environmental Assessment.

At certain steps in the planning process the following general public notifications were released:

1. June 1985 — Federal Register Notice of Intent (NOI) to initiate planning. News release to Missouri newspapers and other media.

2. February 1986 — News release announcing availability of the Missouri Summary of the Management Situation.

3. August 1986 — News release announcing availability of the Missouri Proposed Plan and Environmental Assessment.

Table 1 lists a summary of the various parties which received the Missouri Summary of the Management Situation. A detailed listing of the agencies, governmental units, and private sector corporations and individuals who participated in the planning process, is contained in the public contact record which is available for public inspection at the District Office.

Table 2

District's Summary of Public Comments and Inquiries

Missouri Planning Effort
February 1985 - July 1986

District Mailing Category	Mailings	Comments Received
1. Congressional Offices	40	--
2. Federal Agencies	72	2
3. State Agencies/Academic	10	14
4. Conservation/Non-Profit Groups	42	2
5. Regional Governments	17	1
6. County/Municipal Governments	60	2
7. Private Sector Commercial*	107	5
8. Private Individuals	27	6

*Private sector commercial includes public utilities, minerals interests, banks, law offices, and media.

C. Analysis of Public Comments

A general summary of the public comments is given below. The comments focused primarily on the Missouri Summary of the Management Situation or involved requests for further ownership data.

In all cases comments received by the District were evaluated. Subsequent follow-up correspondence together with all comments received are a part of the public contact record which is available for public inspection at the District Office.

1. General Public

One comment received raised peripheral issues dealing with the creation, management, and disposition of split-estate federal minerals. This comment was responded to at length, explaining federal mineral disposition requirements, BLM planning guidelines, and Forest Service - BLM cooperation on mineral planning issues.

The Public Lands Institute presented recommendations calling for the transfer of BLM upland tracts to appropriate state agencies. Tower Rock, in Perry County, was specifically recommended for transfer to the Missouri Department of Conservation for an addition to the Tower Rock State Forest. The Missouri Department of Conservation has filed under an R&PP application for Tower Rock in Perry County. Active case processing for this request will be completed in Fiscal Year 1987.

2. Federal Agencies

Few comments were received from federal agencies. No significant issues were raised at the outset of planning or upon release of the Missouri Summary of the Management Situation. There were a number of requests for more detailed federal mineral ownership information.

Comments received from the Fish and Wildlife Service supported the preferred alternative. The Service also noted an interest in BLM surface tracts in Howard, Wayne, and Miller Counties, identifying these tracts as having possibly significant fish, habitat, and wildlife values.

3. Regional and Local Units of Government

No direct comments were received from the regional councils contacted. Only one information request was received. The Show-Me Regional Planning Commission requested BLM land and mineral ownership data for Lafayette County.

The Perry County Commission submitted comments supporting the transfer of Tower Rock from BLM to the Missouri Department of Conservation. The County has maintained an active interest in protecting and preserving Tower Rock.

4. State Agencies

Comments were received on the Missouri Summary from the Missouri Department of Natural Resources (DNR). A number of requests for detailed federal mineral ownership information were also received.

DNR concerns reflect a linkage between continued custodial management for a large part of the FMO estate, Section 209 disposal requirements, and the desire to prevent future FMO patterns in areas of the state experiencing federal farm foreclosures.

DNR comments note that the small size and scattered nature of many FMO parcels makes them unproducitve. Disposal for many of these tracts under Section 209 of FLPMA becomes too expensive. Conveyance of mineral interests pursuant to this section can only be made to the existing or proposed record owner of the surface. The cost of conveyance is borne by the applicant, which the DNR feels continues to promote custodial management of the existing federal mineral estate. The position of the DNR, given the high rate of federal farm foreclosures, seeks to work with federal agencies to minimize the creation of additional FMO.

Original title to the split-estate acreage addressed in this plan occurred during the time when lands were transferred to the federal Farm Mortage Corporation as a result of loan defaults. The policy of the federal government at that time was to retain part or all of the mineral estate at the time when the lands were resold. Thus the federal government accumulated the mineral interests for a large number of parcels particularly in the eastern portion of the United States.

The federal Farm Mortage Corporation is no longer in existence and has been replaced by the Farmers Home Administration (FmHA). The FmHA may acquire lands through farm foreclosures, but at the time of resale it is required by statute to convey the minerals with the surface. Therefore, additional split-estate tracts will not occur in the future.

5. Private Sector Commercial

Many of the comments received dealt with requests for detailed federal mineral ownership information. Other comments received supported the overall management direction of the proposed plan.

D. Chronology of Intergovernmental Coordination

February 1985

Regional councils and county units of government were contacted requesting information concerning the status of land use planning.

June 1985

Sent notices and letters to federal, state, and local government agencies and to the general public announcing the start of planning and requesting comments on the planning proposal.

February 1986

Sent the Summary of the Management Situation (inventory data and draft preferred alternative) to federal, state, and local government agencies, and to the general public for review and comment.

May 1986

Met with Missouri Department of Natural Resources to discuss the Missouri Planning effort.

August 1986

The Missouri Proposed Plan and Environmental Assessment is released for public review and comment.

APPENDIX A

Surface Disposal Options and Criteria

BLM is authorized to enter into land adjustments through the Federal Land Policy and Management Act of 1976 (FLPMA) and other public land laws. The principle also applies to adjustments in the mineral estate of lands, particularly where there is a split-estate situation with federally owned mineral estate and privately owned surface, or vice versa.

Major types of land adjustment concerning BLM in the planning area are:

1. Recreation and Public Purposes Transfers;
2. Public Sales;
3. Withdrawals;
4. Complex Multi-Party Exchanges; and
5. Color-of-Title Act Patents.

In implementing this plan in Missouri, BLM will be especially concerned with improving management of public values and resources. This involves more than simply disposing of isolated parcels. The Bureau's disposal decisions will be made after site-specific analysis and study of land use potential.

Realty actions are designed to meet FLPMA and NEPA requirements, and to implement BLM planning decisions effectively. The overall goal of the program is to improve public land management through a variety of methods, including sale, exchange, or other methods of transfer.

I. Land Pattern Disposal Criteria

These criteria are designed to provide the manager flexibility in responding to circumstances which dictate the final disposition of each tract. Although the proposed plan calls for disposal of all tracts in Missouri, each tract will be evaluated against the following criteria to confirm that disposal is appropriate and to determine the method of disposal.

A. Disposal

Lands with the following characteristics will be sold, exchanged or transferred in the public interest:

1. Lands of limited or no public value.

2. Widely scattered parcels which are difficult or uneconomical for BLM to manage.

3. Lands with high public values proper for management by other federal agencies, or state or local government.

4. Lands which will serve important public objectives (such as community expansion) as provided in the Federal Land Policy and Management Act (FLPMA) Sec. 203(a)(3).

5. Lands which are not required for specific public purposes.

6. Lands where disposal would increase the range of economic opportunities provided to the general public.

7. Lands in which the highest value or most appropriate long-term use is agriculture, or commercial or industrial development.

8. Lands without legal public access.

B. Retention

Lands with the following characteristics will remain in federal ownership and be managed by BLM.

1. Areas where disposal of the surface would unnecessarily interfere with the logical development of the mineral estate, e.g., surface minerals, coal, phosphate, known geologic structures, etc.

2. Public lands withdrawn by BLM or other federal agency for which the purpose of the withdrawal remains valid.

APPENDIX B

Minerals Management Areas and Objectives

Determination of appropriate levels of management activity on the federal lands depends largely on the amount of geologic information available. Such information is not usually dispersed evenly over a region the size of a state, but is concentrated in area of minerals production or known potential, in areas of good exposure of rock units, or in areas containing important scientific, recreational, or other cultural values. Thus, large areas of any given state are classified on the basis of geologic inference.

The classifications presented here are not generally of sufficient detail for use as actual mineral potential evaluations. If mineral-related activities or conveyance/disposal actions are proposed for a tract of federal land, detailed studies, which may involve exploratory operations, must be undertaken to assess the area-specific value of any minerals present.

Defined here are the classes of resource potential used by BLM. Major mineral commodities addressed in the District's statewide minerals report are classified according to these categories and are also presented. A statewide map showing proposed minerals classification areas is included (page 26).

I. Class I Management Area (High Resource Potential)

A. Definition

1. Those areas known to host mineral deposits of present economic interest, including exploration or production interest.

2. Those areas suspected to host mineral deposits based on geologic similarities to areas of present economic interest.

B. Objectives

1. Retain federal mineral ownership.

2. Maintain availability of federal mineral ownership for mineral exploration and development, contingent upon protection of surface values and formulation of a leasing mechanism.

3. Cooperate with and assist other federal agencies, state and local government bodies and other entities in mineral leasing and regulatory activities.

4. Lease all federally owned mineral rights within Known Geologic Structures (KGS).

5. Actively determine federal mineral ownership in response to prospecting permit applications.

6. Conduct valuable discovery and preference right leasing determinations in support of leasing decisions made by the Eastern States Office.

II. Class II Management Areas (Moderate Resource Potential)

A. Definition

1. Those areas known to host mineral deposits of past economic interest.

2. Those areas suspected to host mineral deposits, based on known occurrences, appropriate geological settings, or geological similarities to areas of past economic interest.

B. Objectives

1. Retain federal mineral ownership.

2. Make federal lands available for oil and gas exploration (through non-competitive leasing) and solid mineral prospecting contingent upon environmental and procedural reviews.

3. Determine federal mineral ownership and resolve mineral title conflicts in response to prospecting permit and oil and gas non-competitive lease application.

4. Pursue curative actions for existing legislation to allow leasing and development of solid minerals under Public Domain.

III. Class III Management Areas (Low Resource Potential, and Common Variety Minerals and Mineral Materials)

A. Definition

1. Those areas having little or no mineral production potential, although minerals or mineral materials may be present in subeconomic amounts.

2. Those areas known or suspected to host deposits of sand, gravel, stone, clay, or other commodity which is useful and valuable for purposes which could be served by other varieties of the same commodity, and of no higher intrinsic value than similar material from other deposits.

[NOTE: Value may be significantly altered by deposit size or setting, by depth of overburden, by distance to transportation networks, markets, or sites of use, or by other external forces.

The difference between common and uncommon varieties of minerals is important and difficult to determine in some cases. The Class III Management Areas which denote deposits of common variety (salable) minerals may contain Class I or II Management Areas. Should uncommon varieties of sand, gravel, stone, or clay be discovered on federal land, those lands will be treated as Class I or Class II Management Areas.]

B. Objectives

1. Federal mineral estate may be available for disposal, contingent upon site-specific mineral inventory to be made prior to disposal.

2. Requests for sale of federal common variety minerals will be processed on a case-by-case basis. No attempts will be made to generate interest for the purchase of federal common variety mineral deposits.

3. The Bureau will maintain responsibility for regulation of activities for common variety minerals on public domain land.

4. The Forest Service will maintain responsibility for sales and regulation of activities for common variety minerals on National Forest system lands.

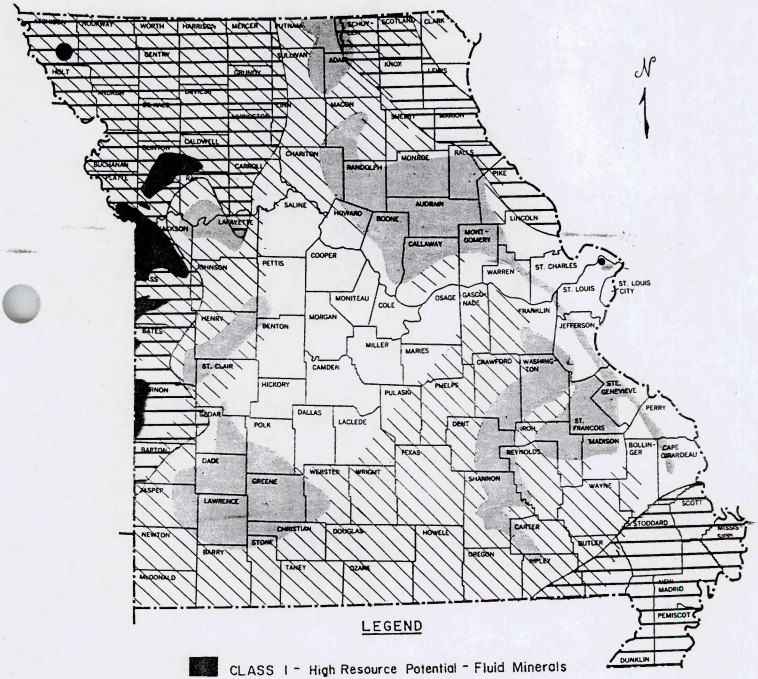
5. Determine federal mineral ownership and its status (leased, non-leased or permitted).

6. Resolve mineral title conflicts in response to commodity sales requests.

Missouri Mineral Resource Classification Map

Scale 1:3,000,000
1 inch equals approximately 48 miles

10 0 10 20 30 40 50



LEGEND

- CLASS 1 - High Resource Potential - Fluid Minerals
- CLASS 1 - High Resource Potential - Solid Minerals
- CLASS 2 - Moderate Resource Potential - Solid Minerals
- CLASS 2 - Moderate Potential - Oil & Gas
- CLASS 3 - Low Resource Potential - Solid Minerals / Oil & Gas

APPENDIX C

Bureau of Land Management

Surface and Mineral Estate

Missouri

County	BLM Surface Tracts	BLM Surface and Mineral Acreage	Federal Mineral Acreage; State, Local, Private Surface**
Audrain			391.0
Barry			80.0
Barton			177.5
Bates			985.0
Benton			76.0
Boone			80.0
Buchanan			94.0
Butler			580.0
Caldwell			86.0
Callaway			400.0
Carroll			44.0
Cass			30.0
Cedar			240.0
Christian			524.0
Clark			198.0
Clinton			195.0
Dade			39.0
Dallas			480.0
Daviess			80.0
DeKalb			199.0
Dent			70.0
Douglas			405.3
Dunkin			301.3
Harrison			40.0
Henry			271.0
Holt			160.0
Howard	1	160.0	
Jasper			70.0
Jefferson	1	21.45	
Johnson			139.5
Laclede			355.0
Lawrence			251.0
Linn			440.0
Livingston			302.9
Macon	1	40.0	609.0
McDonald			80.0
Mercer			88.0
Miller	1	80.0	40.0
Monroe			6.5
Morgan	1	40.0	
New Madrid			243.9

CONTINUED

County	BLM Surface Tracts	BLM Surface and Mineral Acreage	Federal Mineral Acreage; State, Local, Private Surface**
Nodaway			251.0
Perry	1	0.70	
Pettis			80.0
Polk			220.0
Putnam			80.0
Ralls			57.0
Randolph			26.0
Unknown			394.1
St. Clair			332.3
St. Genevieve	1	17.55	0
Schuyler			183.0
Scotland			200.0
Shannon			130.2
Stone			199.0
Sullivan			196.0
Taney			56.6
Texas			360.0
Vernon			165.0
Washington			41.6
Wayne	1	40.0	440.0
Webster			1,032.0
Wright			80.0
Total	8	399.70	13,375.4

**Federal mineral ownership acreage is based on best available data, which may be incomplete.

APPENDIX D

Major Mineral Commodities in Missouri

1. Lead - Zinc

Presently all lead-zinc production in Missouri comes from the Viburnum Trend in the southeast part of the state. Those leases along the Trend on which production is occurring are identified as Class I Management Areas. Class II lands include the whole of the Missouri Ozarks region. Class III areas are confined to that part of the state north of the Missouri River, and Mississippi embayment Region of the Missouri Bootheel.

2. Copper

The criteria used for assigning this commodity to a specific management area is very similar to that used for lead-zinc. Because all copper currently produced in Missouri is a by-product of the lead-zinc mining, the producing leases along the Viburnum Trend are identified as Class I Management Areas. The Boss-Bixby iron-copper deposit in Dent County is also assigned this classification. The Ozarks of Southern Missouri is identified as a Class II area for copper due to this commodity's tendency of occurring with lead and zinc. The remainder of the state is rated Class III.

3. Iron

The most important deposits of iron presently known in Missouri are Precambrian hematite and magnetite ore bodies. Areas where such deposits have been drilled out, delineated and leased as at Camels Hump, Pea Ridge and Boss Missouri are identified as Class I Management Areas. Deposits of brown iron ore and filled-sink hematite are common throughout the Ozarks region. As with copper and lead-zinc, the Ozarks of Southern Missouri is identified as a Class II Management Area for iron ore. Class III areas include those lands north of the Missouri River and the Mississippi embayment area.

4. Barite

Two areas in Missouri have been important producers of barite: (1) the Washington County District and (2) the Central District in the Lake of the Ozarks region. The deposits which are currently being worked in Washington County are identified as Class I Management Areas. The remaining areas of Washington County and all of the Central District fall into the Class II category. Class III lands include all areas of the state not encompassed by the Class I and II ratings.

5. Clay

In Missouri, fire clay occurs in the Northern Fire Clay District, the Southern Fire Clay District and the St. Louis District. Those areas of the Northern Fire Clay District where production is occurring are given a Class I determination. The remaining areas of the Northern Fire Clay

District and all of the Southern Fire Clay District are identified as Class II areas. The St. Louis District has been either mined out or withdrawn from further exploitation by urban sprawl. Remaining areas of the state are classified as Class III.

6. Coal

In Missouri, coal-bearing strata is Pennsylvanian in age and underlies approximately 24,000 square miles of the northern and western sections of the state. Thirteen coal seams are currently considered of sufficient thickness and areal extent to be economic. These thirteen coal seams are present throughout the Pennsylvanian outcrop belt. Consequently, those areas of the state underlain by the Pennsylvanian System are given a Class II Management rating. Those areas within this belt where coal is presently mined or where economical mining conditions exist (e.g., proper stripping ratios) are designated as Class I. The remaining portions of the state are rated Class III.

7. Oil and Gas

The preponderance of oil and gas produced in Missouri comes from stratigraphic horizons of the Pennsylvanian System. These horizons are being explored and exploited, for the most part, in the western and northwestern parts of the state. For the purposes of this report, that areas of the state lying west of longitude 93° west and north of latitude 37° north is given a Class II rating. The areas of the state from which production is occurring or those areas within known fields are identified as Class I Management Areas. The remainder of the state is rated Class III.

8. Stone

In regard to stone in Missouri, those areas identified as possessing high-calcium limestone (figure a) are given a Class II rating. Those areas currently supporting quarry operations which produce this commodity are identified as Class I. The remainder of the state is treated as a Class III Management Area due to the common-variety nature of the stone resources within it.

9. Sand and Gravel

All sand and gravel resources in Missouri are common variety except for the silica sand deposits of the St. Peters Sandstone. Those areas containing deposits of silica sand (figure a) are identified as Class I Management Areas. The remainder of the state is given a Class III rating.

APPENDIX E

Sensitive Surface Resource Management Requirements

The following resources are given special attention during the management of Bureau resources in accordance with federal law, executive orders, federal regulation, or Bureau policy. The narratives provide a general overview of the requirements for each of these resources.

1. Endangered Species Act. Act of December 12, 1973, P.L. 93-205, 87 Stat. 884, 16 U.S.C. 1531.

   This law requires that each federal agency ensure that any action it authorizes, funds, or carries out will not "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. . ." Therefore, land disposals or land use decisions made by the Eastern States Office must be considered in light of this Act. It is necessary to conduct a Sec. 7 consultation, as required by P.L. 93-205, when endangered or threatened species are known to occur on a specific tract of land that is under consideration for disposal or transfer.

2. Floodplain Hazard Evaluation. Executive Order 11988, Floodplain Management, dated May 24, 1977, as amended by Executive Order 12148.

   Requires federal agencies to take action to avoid the long-and short-term adverse impacts associated with the occupancy and modification of floodplains. Agencies are further required to avoid direct or indirect support of floodplain development whenever there is a practicable alternative. Federal agencies must reduce the risk of flood loss and minimize the impact of floods on human safety, health and welfare, and must restore and preserve the floodplains in land transfer actions. If a flood hazard exists, the lands are either retained in public ownership, or a stipulation or covenant included in the grant (lease or patent) to limit the type of use or uses permitted on the land.

3. Protection of Wetlands. Executive Order 11990, dated May 24, 1977.

   Details the special considerations to be met when considering actions which may affect wetlands. Federal agencies are to take action to minimize the destruction, loss, or degradation of wetlands and are to preserve and enhance the natural and beneficial value of wetlands in carrying out programs affecting land use. Conflicts between resource development proposals and other resource values often occur because of the wide range of resources found in these areas. Fisheries, wildlife habitats, water quality and waste recycling values are often threatened by developmental activities, therefore, these activities must be evaluated for their impacts upon wetlands.

4. Coastal Zone Management Act of 1972.

   Provides grants, loans, and guarantees to the coastal States for developing and implementing land use and water use management and coastal energy impact programs in coastal zones. Within the context of

the Act, the phrase "Coastal States" includes 30 Coastal and Great Lakes States, as well as the Territories and Commonwealth of the United States. The state management programs deal generally with the processes and guidelines developed by the States to handle their key coastal problems and issue. The programs set forth each State's objectives, policies, and standards for uses of lands and waters in the coastal zone.

5. Wilderness Values.

Section 603(a) of FLPMA established a 15 year period for review of roadless areas of 5,000 acres or more and roadless islands of the public lands identified as having wilderness characteristics. Section 603(c) provides that during the period of review, the lands shall be managed in a manner that will not impair the suitability of such areas for preservation as wilderness. The following lands in Missouri have been inventoried for wilderness potential and have been found to lack wilderness characteristics:

Number of Tracts	Number of Acres	Inventory Type
8	399.07	Initial

6. Areas of Critical Environmental Concern (ACEC).

According to FLPMA Sec. 103(a) an area of critical environmental concern (ACEC) is an area "within the public lands where special management attention is required (when such areas are developed or used, or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources or other natural systems or processes, or to protect life and safety from natural hazards."

7. Visual Resource Management.

It is Bureau policy to plan, design, and implement its resource management activity so that adverse effects on the visual resource are minimal, provide all Bureau activities with guidance to minimize adverse impacts on the visual resource and provide a systematic interdisciplinary approach that assures the integrated use of environmental design arts and scientific practices.

8. Water Quality.

a. Federal Water Pollution Control Act of 1971 Sec. 404, P.L. 92-500, July 9, 1971, 43 U.S.C. 1251-1376.

Sets out National policies with regard to the potential pollution of navigable water. It states that the discharge of pollutants into navigable water be eliminated by 1985.

b. Clean Water Act of 1977. P.L. 95-217, 33 U.S.C. 404, December 27, 1977, as amended.

Requires BLM to participate with federal and state governments in

water quality planning and permitting activities. It requires exchanging data, resource planning, revising standards, and developing best management practices for the control of non-point source pollution.

9. Air Quality.

a. Clean Air Act Amendments of 1977 P.L. 95-95; 91 Stat. 685, 42 U.S.C. 7401 et seq., August 7, 1977.

This Act revises the Clean Air Act of 1955, as previously amended. The Act provides for the "prevention of significant deterioration" of air quality and places significant responsibility upon the federal land manager for protection, and in some cases, for enhancement of air quality and air quality related values.

b. Clean Air Act Act of November 18, 1971, P.L. 92-157, 42 U.S.C. 1857(f).

Requires the federal government to comply with federal, state, interstate, and local requirements respecting control and abatement of air pollution to the same extent that any person is subject to such requirements. The potential for increased air pollution must be considered in BLM actions.

c. Clean Air Amendments of 1970 P.L. 91-604, 84 Stat. 1676 42 U.S.C. 1857 et. seq., December 31, 1970.

These amendments to the Clean Air Act of 1955, as amended, authorize the establishment of National Ambient Air Quality Standards for major pollutants. Meeting these standards is a state responsibility and is to be accomplished under individual state implementation plans. BLM must comply with National and state air quality standards and is directed to cooperate with the states in carrying out their implementation plan.

10. Cultural and Historic Resource Values

a. Antiquities Act of 1906 P.L. 59-209, 16 U.S.C. 431-33, 1970.

This Act authorizes the President to designate historic and natural resources of National significance located on federally owned or controlled lands as National Monuments. The Act further provides for the protection of all historic and prehistoric ruins and objects of antiquity located on federal lands by providing criminal sanctions against excavation, injury, or destruction of such antiquities without the permission of the Secretary of the department having jurisdiction over such resources. The Secretaries of the Interior, Agriculture, and Defense are further authorized to issue permits for archeological investigations on lands under their control to recognized educational and scientific institutions for the purpose of systematically and professionally gathering data of scientific value.

b. Historic Sites Act of 1935 P.L. 74-292, U.S.C. 461-467, 1970.

This Act declared as National policy the preservation for public use of historic and prehistoric sites, structures and objects. It led to the establishment of the Historic Sites Survey, the Historic American Building Survey, and the Historic American Engineering Record, by giving the Secretary of the Interior and to acquire and preserve archeological and historic sites. The National Historic Landmarks Program and its Advisory Board were also established under this Act to designate properties having exceptional values as commemorating or illustrating the history of the United States. The National Historic Landmarks Program was the beginning of the National Register Program.

c. Reservoir Salvage Act of 1960 P.L. 86-523; 74 Stat. 220.

Requires the Secretary of the Interior to institute an archeological salvage program in connection with federally funded reservoir construction; requires responsible agencies to cooperate in this program.

d. National Historic Preservation Act of 1966 P.L. 89-665, 16 U.S.C. 470-470(m).

This Act authorizes the Secretary of the Interior to expand and maintain a National Register of Districts, sites, buildings, structures, and objects of local, state, and National significance and to grant funds to states for the purpose of undertaking comprehensive statewide historic surveys and preparing statewide plans for historic preservation.

The Act also establishes a program of matching grants-in-aid to the states for the preservation, acquisition, and development of National Register properties and provides funding to the National Trust for Historic Preservation to implement its programs.

Title II of the Act established the Advisory Council on Historic Preservation to advise the President and Congress on matters relating to historic preservation and to comment upon federally licensed, funded, or executed undertakings affecting National Register properties. Under Section 106, federal agencies are required to take into account the effect of their proposed undertakings on properties listed in or eligible for inclusion in the National Register before the expenditure of federal funds or the issuance of any licenses and to allow the Advisory Council a reasonable opportunity to comment.

Procedures for the nomination of properties to the National Register under the National Historic Preservation Act of 1966 have been established by the National Park Service, 36 CFR 60. Procedures for the Advisory Council are in 36 CFR 800.

e. Executive Order 11593 of May 13, 1971.

"Protection and Enhancement of the Cultural Environment" (36 CFR 8921) requires that "the federal government shall provide leadership in preserving, restoring and maintaining the historic and cultural environment"; specifies that all federal agencies shall institute inventories of their properties for historic and archeological sites, and shall provide for their protection in concordance with P.L. 89-665.

f. The Archeological and Historic Preservation Act of 1974 P.L. 93-291, 16 U.S.C. 469(a).

This Act amends the Reservoir Salvage Act of 1960 to include all federal actions that may cause irreparable loss or destruction of significant cultural resources, authorizes expenditure of project funds for salvage, and requires the Secretary of the Interior to report annually to Congress on the effectiveness of the program.

g. American Indian Religious Freedom Act of 1978 P.L. 95-341, 92 Stat. 469, 42 U.S.C. 1966.

The law protects places of religious importance to American Indians, Eskimos, and Native Hawaiians by requiring federal agencies to consider the effects of federal programs and policies on these lands.

h. Archeological Resources Protection Act of 1979 P.L. 96-95, 93 Stat. 721, 16 U.S.C. 470(a).

The Act furthers the legislation establishing the Antiquities Act of 1906. It created stiff penalties for the disturbance of archeological ruins on federal lands and authorized federal agencies to enforce the regulations of this Act.

i. National Historic Preservation Act Amendments of 1980 P.L. 96-515, 94 Stat. 21987 16 U.S.C. 470.

This amendment enacts into law the provisions of Executive Order 11593 and encourages interdepartmental cooperation. Section 502 directs the Secretary of the Interior and the American Folklife Center to devise a program to preserve "intangible" elements of the Nation's cultural heritage.

11. Prime and Unique Farmlands. Farmland Protection Policy Act, Title XV, Subtitle I of P.L. 97-98, 95 Stat. 1341, 7 U.S.C. 4201 et. seq., December 22, 1981.

This Act directs the Department of Agriculture and other federal agencies to take steps to assure that their actions do not cause an irreversible conversion of the Nation's farmland to non-agricultural uses. "Farmland," as defined in federal regulations at 7 CFR 657.5, may include land currently used to produce livestock and timber.

12. Paleontological Resources.

These resources are protected and regulated under the Antiquities Act of 1906 and the Federal Land Policy and Management Act of 1976.

13. The Wild and Scenic Rivers Act of 1968 16 U.S.C. 1271 et. seq.

This Act establishes a National Wild and Scenic Rivers system to protect selected rivers for present and future generations. Three classifications for rivers were identified--wild, scenic, and recreation.

14. Surface Mining Control and Reclamation Act of 1977 P.L. 95-87, 91 Stat. 445, 30 U.S.C. 1201 et. seq., August 3, 1977.

This Act establishes a nationwide program to assure that surface coal mining is conducted to protect the environment. BLM responsibilities under the Act include application of coal unsuitability criteria as part of the regional coal planning process (43 CFR 3461).

APPENDIX F

Principal Preparers and Their Responsibilities

Many Milwaukee District Office personnel were involved in the preparation of this planning effort. Frequent meetings and daily informal conversations were held among staff, supervisors and management. Interdisciplinary coordination was particularly intensive during preplanning, identification of issues and criteria, Summary of the Management Situation, development of alternatives and review of the Proposed Plan and Environmental Assessment. The staff members principally responsible for the conduct of this planning effort are cited below.

Gary Lipp - District Planning Coordinator (Team Leader)

Coordinated the planning effort. Ensured timeliness and quality control of other preparers' contributions. Wrote, edited and conducted internal reviews of planning documents, including the Summary of the Management Situation, Proposed Plan and Environmental Assessment, Decision Record, Approved Plan, and associated press releases and letters for public participation and intergovernmental coordination. Maintained public and intergovernmental contact files and responded to requests for information. Maintained contacts with State and local governmental units and conducted briefings for key State officials, industry representatives and others.

Bill Grossi - Natural Resource Specialist

Identified potential for and assessed impacts on threatened and endangered species, wetlands, floodplains.

Duane Marti - Cultural Resource Specialist

Identified potential for and assessed impacts on historic and cultural resources, recreation values and visual resources, prime farmlands and areas of critical environmental concern.

Priscilla McLain - Realty Specialist

Developed disposal/retention recommendations and rational for plan. Identified support needs and implementation sequences.

John Romito - Geologist

Identified and verified federal mineral ownership to the extent possible. Initiated contacts with other federal agencies in Missouri to improve mineral estate records. Developed minerals inventory and the assessment of development potential. Defined management areas and developed objectives for mineral resources.

Table 1
District Consultation and Coordination
Missouri Planning Effort

A. State Agencies

Department of Conservation
Department of Mines and Minerals
Department of Transportation
Environmental Protection Agency
Office of the Governor
State Fire Marshall

B. Local and Regional Units of Government

Adams County Board of Supervisors
Alexander Board of Commissioners
Bi-State Metropolitan Planning Commission
Bond County Board of Commissioners
Brown County Board of Commissioners
Edgar County Board of Supervisors
Gallatin County Board of Commissioners
Greater Eygpt RPD Commission
Greene County Board of Commissioners
Grundy County Board of Commissioners
Grundy County Planning, Zoning - Building Department
Hancock County Board of Commissioners
Hardin County Board of Commissioners
Illinois Association of County Board Members
Jackson County Board of Commissioners
Jefferson County Board of Supervisors
Kane County Development Department
Kendall County Board of Supervisors
Macoupin County Board of Supervisors
Madison County Board of Supervisors
McDonough County Board of Supervisors
Montgomery County Board of Supervisors
National Association of Counties
National League of Cities
North East Illinois Planning Commission
Ogle County Board of Supervisors
Ogle County Zoning Office
Pike County Board of Commissioners
Pope County Board of Commissioners
Pulaski County Board of Commissioners
Randolph County Board of Commissioners
Rock Island County Board of Commissioners
Saline County Board of Commissioners
Schuyler County Board of Commissioners
South East RPD Commission
South West Illinois Metro RPC Council
Southern Pine Regional Planning Commission
Stephenson County Board of Commissioners

Stephenson County Zoning Office
Two Rivers Regional Council
Union County Commission Coordinating Council
Urban Counties Council of Illinois
Western Illinois Regional Council

C. Federal Agencies

Agricultural Research Service
Army Corps of Engineers
Coast Guard
Environmental Protection Agency
Federal Aviation Administration
Federal Bureau of Prisons
Fish and Wildlife Service
Forest Service (R9)
General Accounting Office
General Services Administration
National Oceanic and Atomosphic Administration
National Park Service
Shawnee National Forest
U.S. Bureau of Mines
Veterans' Administration